**REMARKS**

Applicants respectfully request further examination and reconsideration in view of the arguments set forth fully below. Claims 1-69 were previously pending in this application. Within the Office Action, Claims 1-32, 34-45, 47-59 and 61-69 have been rejected and Claims 33, 46 and 60 have been objected to. By the above amendment, Claims 1, 5-7, 9, 10, 13-18, 20, 22, 23, 26, 30, 34-36, 40-43, 47-49, 53-57, 61-63 and 67-69 have been amended, Claims 2 and 19 have been canceled and new Claims 70 and 71 have been added. Accordingly, Claims 1, 3-18 and 20-71 are currently pending.

## Rejections Under 35 U.S.C. § 102

Within the Office Action, Claims 1-14, 17-32, 34-45, 47-55, 57-59 and 61-69 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0066759 to Molteni et al. ("Molteni"). As will be discussed in detail below, Molteni does not teach associating a separate communication address with each unique application that the mobile device uses. Molteni also does not teach continuously probing for access points, identifying access points within range of the device, obtaining characteristic information about each access point within range and choosing to connect to the access point that fits defined criteria.

Molteni teaches a method for a wireless station to determine network metrics prior to associating with an access point of a wireless network. Molteni teaches that the indication of the quality of communication between the access point of the wireless network includes one or more network performance metrics obtained by temporarily associating with the access point, sending one or more probe packets to the access point and collecting the one or more network performance metrics.

Molteni does not teach associating a separate communication address with each unique application that the mobile device uses. Within the Office Action, it is stated that Molteni teaches that each access point has its own IPv6 address, therefore, a mobile station is capable of associating an access point's IPv6 address for an application communication. The applicants respectfully disagree with this conclusion. Further, this is not what is meant by associating a separate communication address with each unique application the mobile device uses, as taught and claimed in the present invention.

In contrast to the teachings of Molteni, the method of and apparatus for adaptively managing connectivity for a mobile device through available interfaces of the present application allows a user to seamlessly move from one access point to another while the user's mobile device manages the connection for the user. The user's mobile device continuously probes for access points, identifies access points within range of the device and chooses to connect to the access point that fits defined criteria. This criteria includes an analysis of characteristics of the available services, such as cost, bandwidth and speed. Information within the access point's beacon signal is used to obtain information regarding the access point and the characteristics of service provided by the access point through out of band communications. The mobile device utilizes a separate IPv6 address for each application the mobile device uses so that communications are associated with the appropriate interface utilizing this address.

Using the connectivity management system of the present invention, the mobile device is capable of sending or receiving data using multiple interfaces. For example, video data can be sent to the mobile device by 802.11a, while audio data is simultaneously being sent to the mobile device by GPRS. In this situation it is necessary to manage each of these data flows so that the data is associated with its specific interface, by utilizing a separate address for each application so that communications are associated with the appropriate application utilizing this address. As discussed above, Molteni does not teach associating a separate communication address with each unique application that the mobile device uses.

Molteni also does not teach continuously probing for access points, identifying access points within range of the device, obtaining characteristic information about each access point within range and choosing to connect to the access point that fits defined criteria.

The independent Claim 1 is directed to a method of adaptively managing connectivity for a mobile device. The method of Claim 1 comprises obtaining a beacon signal from each access point available to the mobile device, wherein the signal includes source information, using the source information to obtain characteristic information about each access point and characteristics of service provided by the access point and associating a separate communication address with each unique application that the mobile device uses. As discussed above, Molteni does not teach associating a separate communication address with each unique application that the mobile device uses. For at least these reasons, the independent Claim 1 is allowable over the teachings of Molteni.

Claim 2 has been canceled by the above amendment. Claims 3-13 are all dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the

teachings of Molteni. Accordingly, the Claims 3-13 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 14 is directed to a method of adaptively managing connectivity for a mobile device. The method of Claim 14 comprises managing communications for the mobile device for each of a plurality of applications used by the mobile device and associating a separate address for communications relative to each separate application. As discussed above, Molteni does not teach associating a separate address for communications relative to each separate application used by the mobile device. For at least these reasons, the independent Claim 14 is allowable over the teachings of Molteni.

Claim 17 is dependent upon the independent Claim 14. As discussed above, the independent Claim 14 is allowable over the teachings of Molteni. Accordingly, the Claim 17 is also allowable as being dependent upon an allowable base claim.

The independent Claim 18 is directed to a method of adaptively managing connectivity for a mobile device. The method of Claim 18 comprises obtaining a beacon signal from each access point available to the mobile device, wherein the beacon signal includes source information, obtaining characteristic information about each access point and characteristics of service provided by the access point using the source information, determining a preferred access point by comparing the characteristic information to criteria and determining the access point which most closely matches the criteria, establishing a connection with the preferred access point and continuously repeating obtaining a beacon signal, obtaining characteristic information and determining a preferred access point. As discussed above, Molteni does not teach continuously repeating obtaining a beacon signal, obtaining characteristic information and determining a preferred access point. For at least these reasons, the independent Claim 18 is allowable over the teachings of Molteni.

Claim 19 has been canceled by the above amendment. Claims 20-29 are all dependent upon the independent Claim 18. As discussed above, the independent Claim 18 is allowable over the teachings of Molteni. Accordingly, the Claims 20-29 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 30 is directed to a network connection manager configured to adaptively manage connectivity for a mobile device. The network connection manager of Claim 30 comprises a communications interface configured to receive communications from access points available to the mobile device, the communications including a beacon signal from each available access point, wherein the beacon signal includes source information and a controller

coupled to the communications interface to obtain characteristic information, from the source information, about each access point and characteristics of service provided by the access point, wherein the controller associates a separate communication address with each unique application that the mobile device uses. As discussed above, Molteni does not teach a controller that associates a separate communication address with each unique application that the mobile device uses. For at least these reasons, the independent Claim 30 is allowable over the teachings of Molteni.

Claims 31, 32 and 34-42 are all dependent upon the independent Claim 30. As discussed above, the independent Claim 30 is allowable over the teachings of Molteni. Accordingly, the Claims 31, 32 and 34-42 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 43 is directed to a network connection manager for adaptively managing connectivity for a mobile device. The network connection manager of Claim 43 comprises means for interfacing for receiving communications from access points available to the mobile device, the communications including a beacon signal from each available access point, wherein the beacon signal includes source information and means for controlling coupled to the means for interfacing for obtaining characteristic information, from the source information, about each access point and characteristics of service provided by the access point, wherein the means for controlling associates a separate communication address with each unique application that the mobile device uses. As discussed above, Molteni does not teach a means for controlling that associates a separate communication address with each unique application that the mobile device uses. For at least these reasons, the independent Claim 43 is allowable over the teachings of Molteni.

Claims 44, 45 and 47-55 are all dependent upon the independent Claim 43. As discussed above, the independent Claim 43 is allowable over the teachings of Molteni. Accordingly, the Claims 44, 45 and 47-55 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 57 is directed to a network of devices. The network of devices of Claim 57 comprises a plurality of access points each including a wireless interface through which access point communications are sent and received including a beacon signal having source information and a server interface configured to couple to one or more internet servers to provide internet communications with the servers for devices communicating through the wireless interface, a mobile device configured to communicate with the wireless interface and including a network connection manager which adaptively manages connectivity for the mobile device, the network connection manager comprising a communications interface configured to receive the

access point communications and a controller coupled to the communications interface to obtain characteristic information, from the source information, about each access point available to the mobile device and characteristics of service provided by the access points, wherein the controller associates a separate communication address with each unique application that the mobile device uses. As discussed above, Molteni does not teach a controller that associates a separate communication address with each unique application that the mobile device uses. For at least these reasons, the independent Claim 57 is allowable over the teachings of Molteni.

Claims 58, 59 and 61-69 are all dependent upon the independent Claim 57. As discussed above, the independent Claim 57 is allowable over the teachings of Molteni. Accordingly, the Claims 58, 59 and 61-69 are all also allowable as being dependent upon an allowable base claim.

## Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 15, 16 and 56 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Molteni in view of U.S. Patent Application Publication No. 2004/0077341 to Chandranmenon et al. ("Chandranmenon"). As discussed above, Molteni does not teach associating a separate communication address with each unique application that the mobile device uses. As will be described in detail below, neither Molteni, Chandranmenon nor their combination teach associating a separate communication address with each unique application that the mobile device uses.

Chandranmenon teaches a multi-interface mobility client. Chandranmenon also teaches that a multi-interface driver handles communications from the network layer to any of the network interfaces such that the multi-interface driver switches from a first one of the network interfaces to a second one of the network interfaces by changing the one of the plurality of network interfaces with which the multi-interface driver communicates, while hiding the switching from the network layer. Within the Office Action, it is stated that it would have been obvious to combine Chandranmenon with Molteni to provide communications from the mobile device through one of the interfaces based on the separate IPv6 address of each access point and its corresponding application. The applicants respectfully disagree with this conclusion. There is no teaching, hint or suggestion in either Molteni or Chandranmenon to warrant their combination. Further, as discussed above Molteni does not teach associating a separate communication address with each unique application that the mobile device uses. As also discussed above, Chandranmenon does not teach associating a separate communication address with each unique application that the mobile device uses. Accordingly, neither Molteni,

Chandranmenon nor their combination teach associating a separate communication address with each unique application that the mobile device uses.

As described above, using the connectivity management system of the present invention, the mobile device is capable of sending or receiving data using multiple interfaces. For example, video data can be sent to the mobile device by 802.11a, while audio data is simultaneously being sent to the mobile device by GPRS. In this situation it is necessary to manage each of these data flows so that the data is associated with its specific interface, by utilizing a separate address for each application so that communications are associated with the appropriate application utilizing this address. As discussed above, neither Molteni, Chandranmenon nor their combination teach associating a separate communication address with each unique application that the mobile device uses.

Claims 15 and 16 are both dependent upon the independent Claim 14. As discussed above, the independent Claim 14 is allowable over the teachings of Molteni. Accordingly, the Claims 15 and 16 are both also allowable as being dependent upon an allowable base claim.

The independent Claim 56 is directed to a network connection manager configured to adaptively manage connectivity for a mobile device. The network connection manager of Claim 56 comprises a plurality of interfaces each configured to send and receive communications for one of a plurality of applications used by the mobile device and a controller coupled to the plurality of interfaces to associate a separate address for communications relative to each separate application, wherein only communications having an address corresponding to an application and a corresponding interface are sent and received through the interface. As discussed above, neither Molteni, Chandranmenon nor their combination teach a controller which associates a separate address for communications relative to each separate application. For at least these reasons, the independent Claim 56 is allowable over the teachings of Molteni, Chandranmenon and their combination.

Within the Office Action, it is indicated that Claims 33, 46 and 60 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 33 is dependent upon the independent 30. Claim 46 is dependent upon the independent Claim 43. Claim 60 is dependent upon the independent Claim 57. As discussed above, the independent Claims 30, 43 and 57 are all allowable over the teachings of Molteni. Accordingly, the Claims 33, 46 and 60 are all also allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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Dated: *February 21, 2006*

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